

REMARKS

This application has been reviewed in light of the Office Action dated October 28, 2004. In view of the foregoing amendments and the following remarks, favorable reconsideration and withdrawal of the objections and rejections set forth in the Office Action are respectfully requested.

Claims 1-30 are pending. Claims 1-28 have been amended. Claim 30 has been added. Support for the added claims and claim changes can be found in the original disclosure, and therefore no new matter has been added. Claims 1, 15, 28 and 30 are in independent form.

The specification was objected to for failing to include subtitles (section headings). The specification has been amended accordingly. Additional changes to the specification have been made to attend to formal matters. No new matter has been added.

The specification was also objected to as allegedly failing to provide proper antecedent basis for certain claimed subject matter, as noted in paragraph 4 of the Office Action. In response to this objection, Applicants respectfully submit the following remarks.

As for the objection to Claim 1, Applicants submit that the “user interface apparatus” recited in Claim 1 may include all of the elements shown in Fig. 1, including status means, generating means, and output means. (In that regard, the Office Action appears to improperly equate “user interface apparatus” with “user interface.”) Fig. 1 shows an embodiment of a machine having a user interface apparatus in accordance with the invention as claimed in Claim 1. The machine user interface 1 shown in Fig. 1 is not the user interface apparatus but rather is, as set out at page 6, lines 1-12 of the specification, the part of the user interface apparatus via which the user inputs natural language into the user interface apparatus. It is implicit from the

remainder of the description that the machine comprises machine components other than those shown in Fig. 1 so that, e.g., where the machine is photocopy machine (page 10, line 1 to page 12, line 20) the machine will obviously include the usual conventional photocopier machinery including an optical scanner, paper transport and so on.

As for the objection to Claim 14, without conceding the propriety of this objection, Claim 14 has been amended to recite "A machine . . . including the user interface apparatus according to Claim 1." It is noted that the machine may be a processing apparatus, as described in the specification, e.g., at page 4, lines 8-11.

As for the objection to Claims 9 and 23, the recitation "natural language prefix and suffix" in those claims has been amended accordingly. Support for these changes may be found, e.g., at page 9, lines 10-11 of the specification.

In view of the foregoing amendments and remarks, withdrawal of the above-discussed objections to the specification is respectfully requested.

Claims 1-14 and 16-29 were objected to due to various informalities. In response, the Examiner's suggested amendments have generally been adopted herein. However, Claim 14 has been amended in the manner noted above, Claim 28 has been rewritten in independent form, and Claim 29 has been retained unchanged in view of the changes made to Claim 28.

Withdrawal of the objections to the claims is respectfully requested.

Claims 3 and 26 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. These claims have been amended accordingly. Applicants submit that all of the claims comply with the requirements of Section 112. Withdrawal of this rejection is respectfully requested.

Claims 1-8, 10-22 and 24-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,415,257 (*Junqua et al.*) in view of U.S. Patent No. 6,400,996 (*Hoffberg et al.*). Claims 9 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Junqua et al.* in view of *Hoffberg et al.* and further in view of “well known” prior art.

In response to the rejections of the claims under Section 103, Applicants respectfully submit the following remarks.

Applicants submit that independent Claim 1 is allowable for at least the following reasons.

Independent Claim 1 recites, *inter alia*, generating means responsive to an obtained current state of a machine to generate information to inform a user of a natural language instruction which can be input to the machine to achieve the current state of the machine. Applicants submit that none of the cited art would teach or suggest at least this recitation of independent Claim 1.

Junqua et al. describes a system for identifying and adapting a TV user profile. In *Junqua et al.* the user interacts with the system by inputting commands using spoken natural language (column 2, lines 28 to 31). The system has a speech recognizer 12 with a speaker verification/identification module and a preferred user profile database which includes records for each user that contain information about the user's speech patterns and viewing preferences. When a user inputs a command using spoken natural language in *Junqua et al.*, a natural language parser supplies a semantic representation of the user's input to a command module

which in turn commands the tuner of the TV system to make channel selections and set various tuner functions (column 3, lines 34 to 44).

In *Junqua et al.*, if the user's spoken input is something like "please switch to channel 7" then the command module instructs the tuner to make the requested channel selection directly. However, in *Junqua et al.*, the user may input a more complex command specifying a type of program rather than a particular channel. In this case, *Junqua et al.* accesses an electronic program guide to determine whether there is a program that meets the user's request and, if so, notifies the user by synthesised voice response and/or by displaying of a suitable text prompt on the TV screen for each selection located.

Junqua et al. is thus concerned with a system that enables a user meaning to be extracted from spoken natural speech.

In contrast to *Junqua et al.*, the present invention as set forth in independent Claim 1 is concerned with, as set out at page 1, line 20 to page 2, line 17 of the application as filed, assisting a user in the use of a natural language interface so that the user does not spend a lot of time meandering around the various options a machine has available. Thus, in operation, the claimed user interface apparatus assists the user in a selection of a natural language instruction by first determining the current state of the machine and then generating, in response to the determined current state, information to inform the user of a natural language instruction that can be input to the machine to achieve the current state of the machine. Thus, the user interface apparatus embodying the invention as set forth in independent Claim 1 enables a user to be informed as to the natural language instruction that he could have used to obtain the current state of the machine.

Junqua et al. is not concerned with informing a user of a natural language instruction which can be input to achieve the current state of the machine. *Junqua et al.* does not provide a user with any assistance as to the natural language commands that can be input to the machine. Rather, *Junqua et al.* relies on being able to parse the natural language instructions input by the user. The portion of *Junqua et al.* referred to by the Examiner (column 3, line 35 to column 4, line 3) nowhere suggests informing a user of a natural language instruction which can be input to the machine. Rather, this passage of *Junqua et al.* simply discusses the parsing of the user's spoken natural language input by the natural language parser 24 and the subsequent operation of the system to (1) select a channel where the user's natural language input is parsed to extract a command to select a channel, or (2) to access a program guide to provide the user with details of programs meeting the user's requirements.

In the case of (1), the system of *Junqua et al.* cannot be said to generate information of the sort recited in independent Claim 1.

In the case of (2), the system of *Junqua et al.* presents information to the user regarding the programs satisfying the user's request. This information does not, however, assist the user in inputting a spoken natural language instruction to achieve the current state of the machine. Rather, this information simply provides the user with a set of possible programs he can select to watch. At the very least, this information cannot be said to be an instruction which can be input to the machine to achieve the current state of the machine (the state of the machine prior to the user's selecting of a program from the set of possible programs).

Hoffberg et al. is concerned with an adaptive interface for a programmable system for predicting a desired user function based on user history as well as machine internal status and

context. However, as is understood to be conceded by the Office Action, *Hoffberg et al.* neither teaches nor suggests generating means for generating information to inform a user of a natural language instruction which can be input to the machine to achieve the current state of the machine.

In summary, *Junqua et al.* et al describes a system that enables a user to interact with the system by using natural language instructions while *Hoffberg et al.* describes an adaptive interface that predicts a desired user function based on user history as well machine internal status and context. Neither of these documents teaches or suggests generating means responsive to an obtained current state of a machine to generate information to inform a user of a natural language instruction which can be input to the machine to achieve the current state of the machine.

Since neither *Junqua et al.* nor *Hoffberg et al.*, whether taken singly or in combination (even assuming, for the sake of argument, that such combination were permissible), contains all of the elements of independent Claim 1, that claim is believed allowable over the cited art. Since each of independent Claims 15, 28 and 30 recites features similar or identical to the above-discussed features of Claim 1, those claims are believed allowable for at least the same reasons.

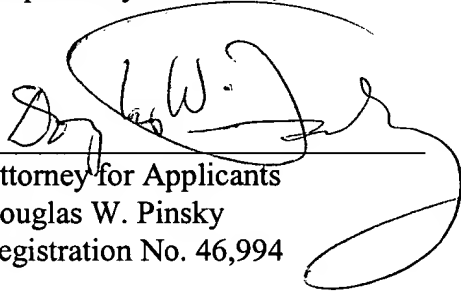
A review of the other art of record, including the cited "well known" prior art, has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicants
Douglas W. Pinsky
Registration No. 46,994

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

DWP/tmc

DC_MAIN 201345v1